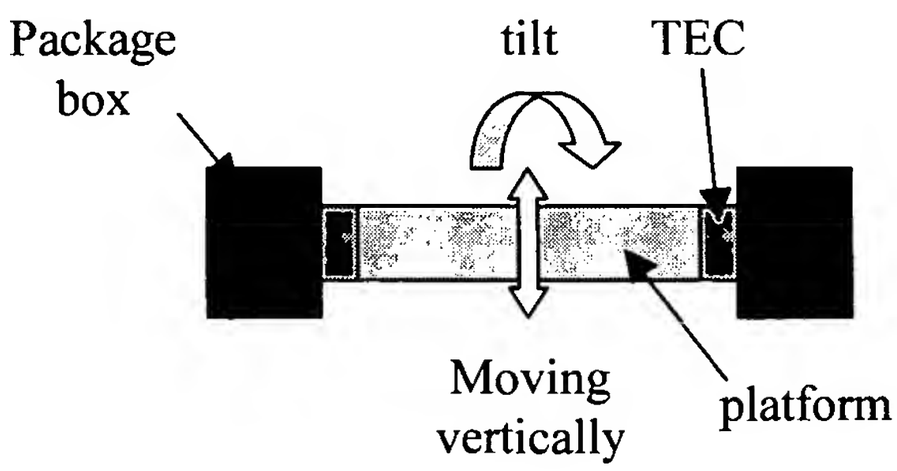
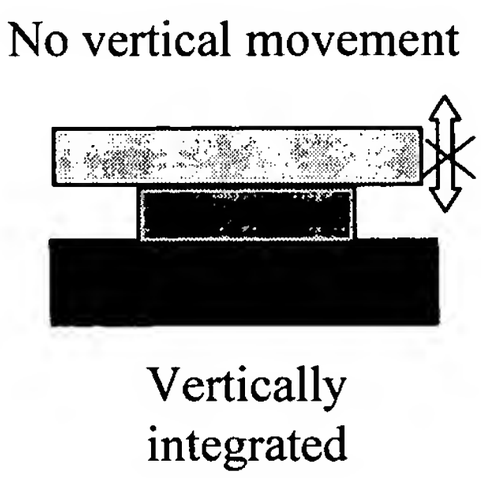
sidewall) only can be changed by changing the thickness of platform or TEC or both. The platform cannot move vertically against the TEC (it can only move in parallel to the TEC). In Figure 20 and Figure 21 of Shimaoka's patent, the top and the bottom of the TEC look like thermally shorted (the top and the bottom of the TEC are thermally connected by the sidewall). It may be a drawing mistake. However, Figure 20 and Figure 21 teach a package in which an opto-electronic device, platform (carrier), TEC and the base are vertically integrated.

In Kluitmans's patent, the opto-electronic device sits on a platform (BC), said platform (BC) sits on a cooling block (CB), and said cooling block sits on a L-shape cooling plate (CP) to conduct thermal energy from said opto-electronic device to the package. Said L-shape cooling plate is attached to the bottom and the one side of the package. However, the height of said opto-electronic device can not be adjusted by moving said platform vertically, since the CP is fixed to the base. As in the Shimaoka's invention, the opto-electronic device, platform and the base are vertically integrated, too, as shown in the following graph.

In my patent application, a new package is disclosed. The opto-electronic device, platform, or TEC, and the sidewalls of the package are not vertically integrated. The opto-electronic device with other optical components sits on the platform and can be laterally moved on the platform. The platform does not vertically sit on the TEC. The platform is laterally attached to the tops of the TECs; the TECs are fixed to the sidewalls of the package. **The platform is perpendicular to the TECs**. The platform can be vertically adjusted before its fixture to the sidewalls, as shown in the following graph. The lateral movement of the opto-electronic device and optical components on the platform and the vertical movement of the platform against the sidewalls or TECs render a full spatial adjustment of the opto-electronic device against an optical connector attached on one sidewall of the package to achieve a good optical coupling between the opto-electronic device and the optical connector. If without TEC, the platform can be directly attached to the sidewalls. Obviously, the package is not taught in previous arts. The benefits of the package are 1) the reduction of the package height; 2) the usage of less precisely machined components (e.g., the height of the platform is not critical to the optical coupling in the disclosed package); and 3) the simplification of packaging process.





Conclusion

The new configuration (the platform is laterally attached to the sidewalls/or to the tops of TECs, whose bottoms are fixed on the sidewalls of a package) of opto-electronic package taught in this disclosure renders a new way to align the opto-electronic device inside the package and the optical connector outside the package. It is obviously not taught and can not be derived in prior art. For all of the above reasons, applicants submit that claims are in proper form, and that the claims all define patentably over the prior art. Therefore I submit that this application is now in condition for allowance, which action I respectfully solicit.

Conditional Request For Constructive Assistance

I have amended the claims of this application so that they are proper, definite, and define novel structure that is also unobvious. If, for any reason this application is not believed to be in full condition for allowance, I respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and §707.07(j) in order that I can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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